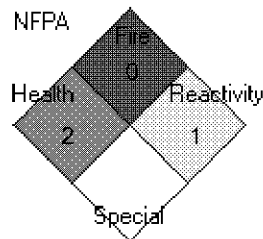


**MSDS - Material Safety Data Sheet****Product Name: Solder, Silver Bearing (Lead Free)****MSDS No.: 097180****Part Numbers Covered:**097180  
097181  
097190  
097200**I. Basic Information:****Manufacturer:****Address:****City, ST Zip:****Last Update:** 7/8/2002**Chemical State:** ☐ Liquid ☐ Gas ☒ Solid**Chemical Type:** ☐ Pure ☒ Mixture

2	Health
0	Flammability
1	Reactivity
X	Pers. Protection

**II. Ingredients:**

CAS No.	Chemical Name	% Range	EHS	NTP	IARC	SUB Z	SARA 313	OSHA PEL	ACGIH TLV	Other Limits
12125029	AMMONIUM CHLORIDE	NI					X	10 MG/M <sup>3</sup>	20	NI
7440224	SILVER	NI					X	5 MG/M <sup>3</sup>	.5	NI
7646857	ZINC CHLORIDE	NI					X	1 MG/M <sup>3</sup>	2 MG/M <sup>3</sup>	NI

**III. Hazardous Identification:****Hazard Category:**
☐ Acute
                 
 ☐ Chronic
                 
 ☐ Fire
                 
 ☐ Pressure
                 
 ☐ Reactive
**Hazardous Identification Information:**

NDA

**IV. First Aid Measures:****Route(s) of Entry:**

INHALATION AND INGESTION

**Health Hazards (Acute and Chronic):**

IRRITATION MAY RESULT FROM CONTACT. TISSUE DAMAGE MAY RESULT FROM PROLONGED OR REPEATED EXPOSURE.  
 HEALTH STUDIES HAVE SHOWN THAT POTENTIAL HEALTH RISK MAY VARY BY INDIVIDUAL. ALWAYS MINIMIZE EXPOSURE AS A  
 PRECAUTION. MUTAGENIC IN LAB ANIMALS.

**Signs and Symptoms:**

EYES: REDNESS, BURNING, TEARING, BLURRED VISION  
 SKIN: REDNESS, BURNING, RASH, DRYNESS  
 INHALATION: HEADACHE, DIZZINESS, DIFFICULTY BREATHING  
 INGESTION: NAUSEA, VOMITING, CRAMPS

# MSDS - Material Safety Data Sheet

**Product Name:** *Solder, Silver Bearing (Lead Free)*

**MSDS No.:** 097180

**Medical Conditions Generally Aggravated by Exposure:**

NI

**Emergency and First Aid Procedures:**

EYES: FLUSH WITH WATER FOR 15 MINUTES - SEEK MEDICAL ATTENTION

SKIN: FLUSH WITH WATER IMMEDIATELY - SEE MEDICAL ATTENTION

INHALATION: REMOVE TO FRESH AIR. SUPPORT RESPIRATION IF REQUIRED - SEEK MEDICAL ATTENTION.

INGESTION: GIVE PLENTY OF WATER - SEEK MEDICAL ATTENTION. NEVER GIVE LIQUIDS TO AN UNCONSCIOUS PERSON.

**Other Health Warnings:**

NI

## ***V. Fire Fighting Measures:***

**Flash Point:** NI

**Lower Explosive Limit:** NI

**Upper Explosive Limit:**

**Fire Extinguishing Media:** ALL

**Special Fire Fighting Procedures:**

USE SELF-CONTAINED BREATHING APPARATUS

**Unusual Fire and Explosion:**

NI

## ***VI. Accidental Release Measures:***

**Steps to be Taken in Case Material is Released or Spilled:**

VACUUM, ABSORB, OR FLUSH INTO A CHEMICAL SEWER. DO NOT USE ANY METHOD WHICH WILL GENERATE DUST.

## ***VII. Handling and Storage:***

**Precautions to be Taken:**

NI

**Other Precautions:**

AVOID CONTACT, FUMES, AND DUST.

## ***VIII. Exposure Controls/Personal Protection:***

**Ventilation Requirements:**

LOCAL EXHAUST PREFERRED, MECHANICAL OK

**Personal Protective Equipment:**

METAL FUME MASK FOR FUMES ABOVE TLV, IMPERVIOUS PROTECTIVE GLOVES, GOGGLES OR FACE SHIELD, AND OTHER PROTECTIVE CLOTHING AS REQUIRED TO AVOID CONTACT. WASH AFTER USE. FOLLOW GOOD INDUSTRIAL HYGIENIC PRACTICES.

# MSDS - Material Safety Data Sheet

**Product Name:** *Solder, Silver Bearing (Lead Free)*

**MSDS No.:** 097180

## IX. Physical and Chemical Properties:

**Boiling Point:** 230 F D      **Melting Point:** NI      **Evaporation Rate:** <1  
**Vapor Pressure (mm Hg.):** NI      **Vapor Density (AIR = 1):** NI  
**Solubility In Water:** APPRECIABLE  
**Appearance and Odor:** SILVER GREY PASTE, ODORLESS  
**Other Information:**

## X. Stability and Reactivity:

**Stability:**  
STABLE  
  
**Incompatibility (Materials to Avoid):**  
OXIDIZING MATERIALS  
  
**Decomposition/By Products:**  
LEAD FUMES, NH4, C12  
  
**Hazardous Polymerization:**  
WILL NOT OCCUR

## XI. Toxicological Information:

NDA

## XII. Ecological Information:

NDA

## XIII. Disposal Considerations:

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

## XIV. Transport Information:

## XV. Regulatory Information:

NDA

## XVI. Other Information: